The coincidence that, both in the case related above and in De Haen's case, the patient was periodically subject to abdominal pains, associated in the first with a constricting sensation, in the second with tympanites, may be noted as, perhaps, indicating that the intestine had not unfrequently slipped into the opening before the fatal incarceration took place. I am indebted to Mr. T. Smith for his kind permission to publish the case.

CUCAINE IN ACUTE AFFECTIONS OF THE UPPER RESPIRATORY PASSAGES.

By J. STRAHAN, M.D.,

Formerly Medical Officer to the Belfast Dispensary.

THE fact that Jelinek has produced complete anæsthesia of the larynx by the application of cocaine, points to a vast field of usefulness for that drug, not hitherto explored. To secure anæsthesia of the larynx, epiglottis, palate, and pharynx, must prove an invaluable boon to the profession and the patient, in the immediate future. Even the action of carbolic lotion or lozenge in throat-affections, as an anæsthetic, is by no means to be despised; so that we can easily imagine the comfort, relief of pain, and even avoidance of danger to life in cases of spasm of the glottis, likely to result from the use of cocaine. It has been used with perfect success in operative procedures about the larynx, but has not yet been tried for either diphtheria or croup. It is obvious what a boon the addition of cocaine applications would be to any plan of treatment. It could be applied either by ordinary swabbing with a four per cent. solution, or by insufflation with the dry powder; or the solution could be sprayed when we wished to reach far down. Even if the applications had to be made as often as every half-hour, for a little, the trouble would be as nothing compared with the ease and safety of the patient. In case of necessity, the nurse could apply it perfectly well in any form, if taught. The addition of a couple of drops of chloroform (a solvent of cocaine), to the ounce, would prevent the formation of fungus in the solution, as it does in the case of solutions of atropia, morphia, strychnia, tartarated antimony, and indeed all solutions usually spoiled by fungi. This would conduce to economy, as the solution without any preservative soon spoils, and is then liable to excite acute inflammation in mucous membranes instead of curing it. Of course the chloroform must be dissolved in the alkaloidal solution, by agitation in a bottle not more than three quarters full. This amount of chloroform causes no irritation, even in the eye, as I constantly use preserved solution of atropia, without causing the slightest pain.

We have now evidence that a four per cent. solution of cocaine painted on the nasal mucous membrane, besides causing anæsthesia, contracts the capillaries, drives out the blood, and causes a membrane swollen and red to become shrunken and pale. In coryza, even where the nares are obstructed by swelling, a strip of lint, soaked in the solution and pushed into the anterior nares, speedily removes the swelling, permits the passage of the breath, and, repeated once or twice, even permanently cures the disease. From these considerations, it seems to me that cocaine is destined to become an indispensable aid in all acute inflammatory diseases of the upper respiratory passages. In laryngitis, croup, diphtheria, scald of the larynx, simple or reflex spasm of the glottis, and even in chronic laryngeal affections, life often depends on the absence of fits of spasm; and the only remedy, when it occurs often enough or severely enough to threaten life, is tracheotomy. If cocaine, by inducing complete anæsthesia of the parts, prevents these spasms even in part, it will be an invaluable addition to the treatment of these diseases. We have some evidence that it will do so, from the fact that the imperfect means on which we have hitherto had to rely for anæsthetising the larynx, pharynx, etc.—namely, bromides and chloral—do very markedly diminish the tendency to spasm of the glottis in croup, for instance. For that reason among others, I am of opinion that a combination of bromide of potassium and hydrate of chloral constitutes the very best treatment for croup—at least, so far as systemic remedies go. The bromide diminishes the number and intensity of the laryngeal spasms. The chloral, in addition, acts as perhaps the most powerful antiphlogistic we have in such cases; it greatly reduces arterial blood-pressure, diminishes body-temperature, and acts as a powerful germicide, both generally and locally. The local use of cocaine, and the constant inhalation of some efficient antiseptic vapour, such as that of eucalyptus-oil, or of turpentine and tar, in addition to the internal treatment described, and with proper attention to alimentation, would seem to me to be an almost perfect therapeutic plan for diphtheria, croup, and many other diseases of the respiratory passages.

RESULT OF ENTEROTOMY IN A CASE OF INTESTINAL OBSTRUCTION.

By W. W. WAGSTAFFE, F.R.C.S., Sevenoaks.

I HAVE recently become acquainted with the termination of a case, in which I opened the intestine in the right groin for intestinal obstruction, ten years ago, and which was reported at the time; and I think it a duty to complete the narration, when possible, of any case which has been of sufficient importance to attract attention.

Shortly given, the case was one of intestinal obstruction in a woman, aged 30, and the obstruction appeared to be caused by a pedunculated growth, springing from about the left sacro-iliac joint. But the hand could be passed into the bowel, and found the mucous membrane involved to some extent, though the real seat of obstruction was above the reach of the hand; for the bowel was empty immediately above the nodular mass, which could be explored by the hand passed into the rectum. Complete obstruction had lasted seventeen days, and the patient was emaciated and sinking, with the ordinary symptoms of obstruction, so I opened the bowel in the right groin, and relief immediately followed. She left St. Thomas's Hospital about a month later, with an artificial anus in the groin, but the evacuation of the contents of the bowel was taking place to some extent from the rectum.

Since that time, I have lost sight of her; but I have occasionally heard of the patient from Dr. Coates, an old pupil, under whose care she has been from time to time. She improved greatly in health and strength; and the opening in the groin, which gave some trouble at first from protrusion of the gut, gradually diminished in size, and was not a serious inconvenience to her. The motions were passed more and more by the rectum until very little escaped from the opening in the groin. She was able to undertake housework, and could walk three or four miles without trouble, and she felt that she was in no way seriously affected by the artificial anus.

Things remained thus for about two-and-a-half years, when I learn that she died from peritonitis, after about a week's illness. I hear that this peritonitis was not associated with further obstruction; but, unfortunately, no *post mortem* examination was made.

The case is, therefore, incomplete; but, such as it is, it is worth while recording for the evidence it gives of more than two years' comfort and life by operation for intestinal obstruction, which was threatening to be fatal. The cause of the obstruction was not one to be removed by ordinary means, and the result as regards relief was as much as, or even more, than might have been expected. It differed from those cases of twist, displacement, invagination, band, etc., where the mechanical obstruction can be removed by operation, and it was only the urgent symptoms due to the blockage that could be relieved. Yet, with relief to these, by opening freely above the obstruction, there was gradual restoration of the natural course of the evacuations; and the patient passed two years of comfort, and was able to perform her household duties and walk without inconvenience. It is also of interest to notice that, after a time, the opening in the groin gave rise to little inconvenience, either from protrusion or from the passage of faeces, and this is a matter of great practical importance to a patient who has to be actively employed.

In the absence of *post mortem* examination, I feel hesitation now in recording the case as one of opening the small intestine, as I would mean by enterotomy; but my impression at the time of operation was that the small intestine was opened, and not any part of the large intestine, which, I am ready to allow, might as easily have occupied the right side of the abdomen towards the groin.

THE TREATMENT OF BILHARZIA DISEASE.

By P. SONSINO, M.D., Pisa, Italy.

No doubt Bilharzia infects indifferently robust and feeble subjects; and subjects with Bilharzia, in some cases, do not appear to suffer much, as Dr. John Harley said in the recent discussion at the Royal Medical and Chirurgical Society (May 26th); but when the infection is of long standing, and the number of the worms is great, we have then always signs of anemia and feebleness, and then it becomes necessary to sustain the organism with tonics, iron, and good nourishment, as recommended by Dr. Cobbold. This last treatment certainly does not prevent one from catching the worm, but it is required by the bad state of the patient, in consequence of the infection.

I know that, in Egypt, there are now some practitioners who profess to cure hæmaturia arising from Bilharzia with medicated injections

(perchloride of mercury and other substances), but I am convinced, as is also Dr. Cobbold, that this is a mere delusion; because it is not possible to reach and kill with these injections the worms which live principally in the different branches of the portal system. The natural course of hæmaturia is not continuous; the cessation of it for some time is not cure; and it is not possible to obtain really a cure without getting rid of the worms from the organism. I do not say that it is impossible that we may find a substance that, introduced into the blood, may kill the worm without endangering the life of the host; yet I entertain the belief, expressed long ago, that the worms circulating with the blood, when dead, may prove more dangerous than when alive, as they may become more easily the point of formation of clots and embolisms. But, apart from this, no substance can be of avail if it be not absorbed and diffused through the blood; and that very probably is not the case with substances introduced through the urinary bladder.

Whoever has seen the *post mortem* alterations often produced in the walls of the bladder by the dispersion of the ova in their tissues, cannot believe in the usefulness of medicated injections to cure them. Medicated injections, and above all washing out the bladder, can be only useful in certain cases to alleviate the complicating catarrh of the bladder and prostate; that is all. Medicated injections, it is true, may kill the embryos in the ova poured into the cavity of the bladder; but that has no real importance, because the embryos, when free, soon die by themselves, not being able to live long in the urine. Surgical measures may, in certain cases, be required by alterations of the bladder consequent on infection by Bilharzia, such as growths like papilloma, or incrustations on the mucous membrane; but by surgical measures we cannot deal directly and radically with the infection.

I, therefore, think that, as yet, we have no means of curing the infection of Bilharzia better than is done by nature. The best thing of all is to avoid receiving the worm into the body, and for this I think I have been the first to have indicated the true prophylaxis in suggesting that only well filtered water should be drunk. I have the conviction that the larval form of the worm enters the human organism generally with drinking water, and, being too large, cannot pass with filtered water.

June 1885.

AN INSTRUMENT FOR THE TRANSFUSION OF DEFIBRINATED BLOOD.¹

By T. W. CARMALT JONES, M.A., F.R.C.S. Edin.

THIS instrument is intended to be used for transfusing defibrinated blood. It could be equally well used for injecting milk or any other fluid into a vein. It consists of a holder (A), into which the defibrinated blood is to be poured; a tightly-fitting metal cap (L), in the centre of which is a hole; a pipe leading from this hole communicates, by means of an India-rubber tube, with a valved hand-ball (T). When the cap is in position on A, air can pass easily to A; but pressure on the hand-ball will force air into A, and compress it on the surface of the fluid in A. At the lower end of A is a piece of India-rubber tubing (B), which can be compressed by the clip (D); and at the other end of the tubing is a hollow coned metal plug (C), which fits into the silver nozzle (M). The instrument, with its accessories, as supplied in the case, provides all that is required for the performance of the operation of transfusion of defibrinated blood, with the exception of a clean ordinary tumbler, or, preferably, a small milk-jug, and a basin of hot water.

The steps of the operation are as follows.

1. Bleed the donor, in an adjoining room, if possible, to five or six ounces, into the measured vessel (H).
2. Whip the blood with the whip (P), and strain through the strainer (F) into the tumbler or milk-jug.
3. See that the India-rubber tube (B), plug (C), and clip (D), are in place. Pour the defibrinated fluid into the holder (A), and put the cap (L) on firmly; then place the holder in the basin of water at 100° Fahr.
4. Open a vein in the patient's arm, and insert the silver nozzle (M, K, or I)—three sizes of nozzles are provided; and block up the open end of the nozzle with the finger.
5. Have the holder brought to you; ease the clip until the fluid flows out of the plug; then tighten the clip again. Take the finger away from the end of the nozzle, and insert the plug, and remove the clip. Note the height of the fluid in A. The fluid in the holder is

now in free and direct communication with the blood in the patient's vein. If any force is required, squeeze the hand-ball gently.

6. After the operation is over, again note the height of the fluid in A, remove the short piece of India-rubber tubing (B), and burn it. The other parts can then be easily and thoroughly cleansed.

The instrument is very simple in action; has no delicate or complicated parts that can get out of order, so as to cripple it; has

H Vessel marked in ounces for donor to be bled into. P Whip to be used in H. F Strainer of lawn muslin on wire frame. A Holder to receive defibrinated fluid. B India-rubber tube about three inches long. C Coned plug (hollow). D Clip. L Metal cap for A. T Hand-ball. M Nozzle. K I Additional nozzles. E Blood-director.

no taps to puzzle the operator; and can be thoroughly cleaned and inspected. Supposing anything were to happen to the hand-ball, an assistant could supply all the force required by blowing, though not so conveniently as the hand-ball.

The piece of India-rubber tubing at B is to be a clean new piece each time the instrument is used, and is to be burnt directly after use, so that no danger may arise from dried blood not removed after previous use. The inside of India-rubber tubing is rough, and not easily cleansed, and cannot be inspected to see if it is clean. This piece of tubing allows sufficient play, and breaks the rigidity, but is purposely kept short. The amount of blood taken from the donor, and the exact amount injected into the patient, will be known.

The instrument is made for me by Mr. Hawksley, of Oxford Street, to whom I am indebted for several practical suggestions.

ON A NEW METHOD OF TESTING FOR ALBUMEN IN URINE.¹

By G. P. BEST, B.A., M.B., Cantab.

I NEED not dwell at length on the ordinary methods of testing for albumen. Suffice it to refer to the observations of an expert in this line, who sums up all that I need insist upon. Speaking of the diagnosis of granular kidney—the disease in which this matter of the contents of the urine is most veiled and most important—he urges what every one will admit, “the great importance of the early detection of the disease,” and further, the fact of which every one is aware, that its only certain pathognomonic sign is the “constant slightly albuminous” character of the urine. (*Clinical Reports on Renal and Urinary Diseases*, by Wm. Carter, M.B. London: J. and A. Churchill. 1878.)

¹ Read before the Harveian Society of London.

¹ From a paper read before the Midland Medical Society.